6CB6

# 6CB6
## SHARP-CUTOFF PENTODE

MINIATURE TYPE

### GENERAL DATA

**Electrical:**

Heater, for Unipotential Cathode:

| | | |
|---|---|---|
| Voltage | 6.3 | ac or dc volts |
| Current | 0.3 | amp |

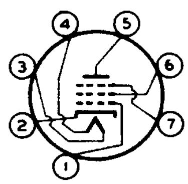
Direct Interelectrode Capacitances:

| | *Without External Shield* | *With External Shield*° | |
|---|---|---|---|
| Grid No.1 to plate | 0.020 max. | 0.010 max. | μμf |
| Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater | 6.5 | 6.5 | μμf |
| Plate to cathode, grid No.3 & internal shield, grid No.2, and heater | 1.9 | 3.0 | μμf |

**Mechanical:**

| | |
|---|---|
| Mounting Position | Any |
| Maximum Overall Length | 2-1/8" |
| Maximum Seated Length | 1-7/8" |
| Length, Base Seat to Bulb Top (Excluding tip) | 1-1/2" ± 3/32" |
| Maximum Diameter | 3-4" |
| Bulb | T-5-1/2 |
| Base | Small-Button Miniature 7-Pin (JETEC No.E7-1) |
| Basing Designation for BOTTOM VIEW | 7CM |

Pin 1 - Grid No.1
Pin 2 - Cathode
Pin 3 - Heater
Pin 4 - Heater




Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Grid No.3, Internal Shield

### AMPLIFIER - Class $A_1$

**Maximum Ratings,** ***Design-Center Values:***

| | | |
|---|---|---|
| PLATE VOLTAGE | 300 max. | volts |
| GRID-No.2 (SCREEN) SUPPLY VOLTAGE | 300 max. | volts |
| GRID-No.2 VOLTAGE | *See Grid-No.2 Input Rating Chart at front of Receiving Tube Section* | |
| PLATE DISSIPATION | 2 max. | watts |
| GRID-No.2 INPUT: | | |
| For grid-No.2 voltages up to 150 volts | 0.5 max. | watt |
| For grid-No.2 voltages between 150 and 300 volts | *See Grid-No.2 Input Rating Chart at front of Receiving Tube Section* | |

° With external shield JETEC No.316 connected to cathode.

← Indicates a change.



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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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## SHARP-CUTOFF PENTODE

→ PEAK HEATER-CATHODE VOLTAGE:

| | | |
|---|---|---|
| Heater negative with respect to cathode | 200 max. | volts |
| Heater positive with respect to cathode | 200▲max. | volts |

**Typical Operation and Characteristics:**

| | | |
|---|---|---|
| Plate Voltage | 200 | volts |
| Grid No.3 (Suppressor) | *Connected to cathode at socket* | |
| Grid-No.2 Voltage | 150 | volts |
| Cathode-Bias Resistor | 180 | ohms |
| Plate Resistance (Approx.) | 0.6 | megohm |
| Transconductance | 6200 | μmhos |
| Grid-No.1 Voltage (Approx.) for plate current of 10 μamp. | -8 | volts |
| Plate Current | 9.5 | ma |
| Grid-No.2 Current | 2.8 | ma |

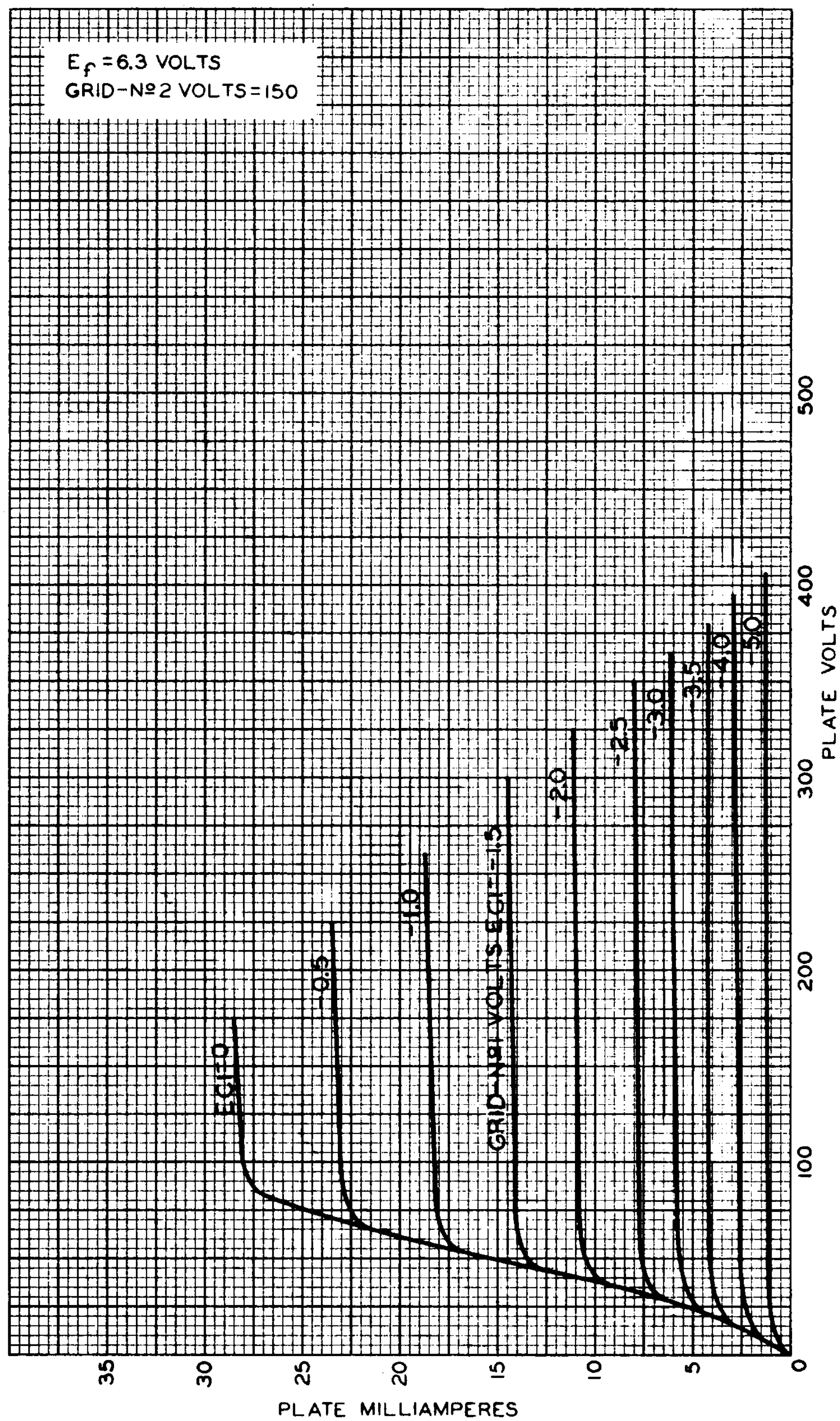
▲ The dc component must not exceed 100 volts.

→ Indicates a change.



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## AVERAGE PLATE CHARACTERISTICS

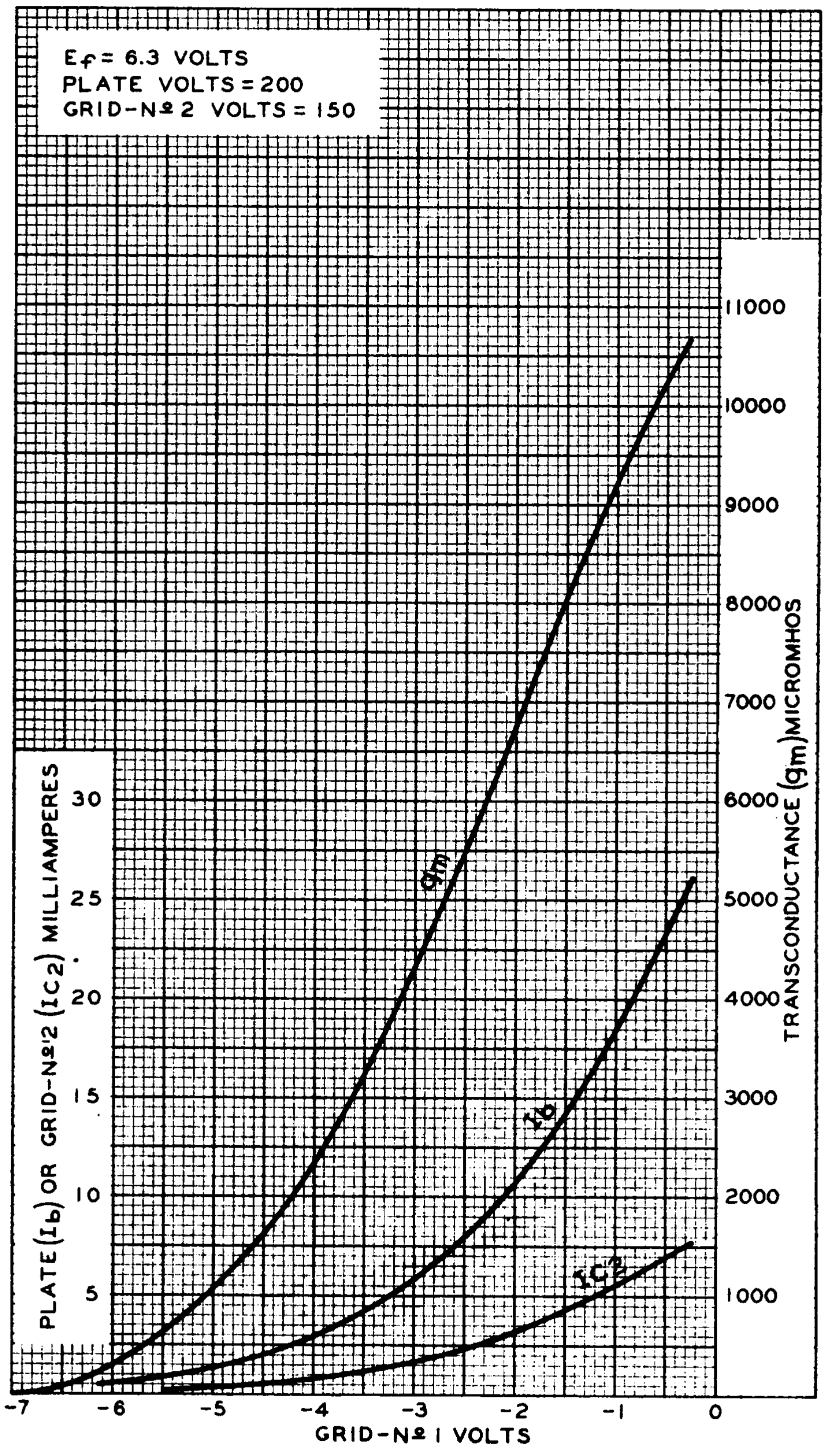




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## AVERAGE CHARACTERISTICS




SEPT. 28, 1949